

NOTES ON AUSTRALIAN ECONOMIC BOTANY—No. II.

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FOODS.

ADANSONIA GREGORII, *F.v.M.* N.O. Malvaceæ. The "Bottle-tree"* of N.W. Australia.

From Mr. J. Pentecost, who spent some months in the Kimberley district, I learnt the following particulars in regard to these singular trees. Two or three were usually seen at a time, with a long interval. The fruits are rather larger than an emu egg (one in my possession has its diameters six and four inches respectively). The blacks, and Europeans too, chew the slightly acidulous pith or pulp. The seeds embedded in this pithy pulp taste like hazel nuts, and are a favourite food of the blacks. So valuable are these trees to them that they never notch the trunks nor injure the trees in any way in their pursuit of the fruit, as they do in the case of other trees.

COCOS NUCIFERA, *Linn.* N.O. Palmæ. "Coco-nut"

This is a tree specially protected by enactments of the Queensland Parliament in the interests, chiefly, of the aboriginals and Polynesians. Legislation of this kind is so rare in the colonies that I have gathered some information in regard to this particular instance. Mr. Lewis Bernays, F.L.S., Clerk of the Parliaments, Brisbane, kindly informed me that the Acts referred to are the Pearl-shell and Bêche-de-mer Fishery Act of 1881, and also its Amendment Act of 1886. Through his kindness in forwarding

* For a fine plate, and excellent description of this tree, see J. R. Jackson in *The Student*, July, 1868.

me copies of both Acts I am able to quote clause 13 of the Amending Act, which is as follows:—"Any person who cuts down or injures a coco-nut tree, or other tree bearing edible fruit, or any tree of the kind known as *Calophyllum inophyllum* . . . shall be liable to a penalty not exceeding £10."

I wrote to the Hon. John Douglas, C.M.G., Government Resident, Thursday Island, asking what was the effect of this legislation, and he courteously supplied the following information:—"Coco-nut trees are, I think I may say, religiously respected. We have not many matured trees in this immediate neighbourhood, though there are plenty in the islands in the Straits. A good many have lately been planted, and some of them are doing pretty well, but there are a good many failures. The *Calophyllum inophyllum*, of which there are very few specimens, is not likely to be touched by ruthless hands" (July, 1890).

STERCULIA DIVERSIFOLIA, *G. Don.* N.O. Sterculiaceæ. A
"Kurrajong."

It has been recorded, many years ago, by Macarthur and others, that this tree possesses an edible root, but I give the following more detailed information. The tree seems hardly, if at all, known in the Candelo district by the above name, but it is well known as the "Yam-tree," on account of the large yam-like root the tree possesses, at all events in the young state; these are locally known as yams, and they were at one time sought after by the aborigines for food. In the case of some small trees, less than one inch in diameter, which were dug up for planting, they had yams from eight to twelve inches long, and two or three in diameter, weighing several pounds. They have been got eight to ten pounds in weight, and are not despised by Europeans. The outside skin or bark of these yams can be easily removed, and looks like the skin of a radish. The inside is beautifully white, a little sweetish in taste, but otherwise rather insipid. I cannot learn whether the aborigines used to eat them raw or subject them to some process of cooking.

EUCALYPTUS GUNNII, *Hook. f.* N.O. Myrtaceæ.

For an exhaustive research on this manna, see "The Carbohydrates of manna from *E. Gunnii* and of Eucalyptus Honey." By F. W. Passmore, Ph.D. (*Pharm. Journ.* [3], xxi. 717).

Perhaps on account of the rain, there was so much manna on the Monaro last year, that if there were any sale for it it would represent a large sum annually for the district. Under large trees of *E. Gunnii* the ground is often literally covered, on the high lands above Cooma, and on the plains where both *E. Gunnii* and *E. viminalis* occur there is a great deal more. A family of children could gather a large quantity in a day, so that, if there were any sale for it, manna-collecting could become a useful minor industry during the summer months. Although last year it was particularly abundant, large quantities are obtainable every year.

From actual observation, the production of manna does not seem to be affected by either wet or dry weather, although of course the first shower of rain washes away all that has been formed since the previous shower.

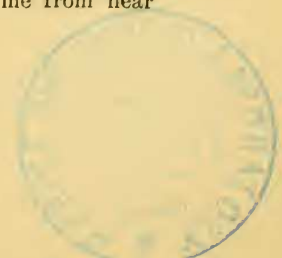
SESELI HARVEYANUM, *F.v.M.* N.O. Umbelliferæ.

The "seed" of this fragrant plant is used in the Snowy Mountains as a substitute for caraways, and is locally known as "Anise." The seeds do not, however, resemble anise, particularly in flavour, but they are most like Indian fennel (*Feniculum vulgare*, Gærtn.) in general appearance and perhaps in flavour, of all umbelliferous seeds which enter into commerce. The root, also, is aromatic. The plant is rather plentiful in the locality indicated, above 5000 feet, although it also occurs as low as from 3000-3500 feet.

STOCK POISONS.

BULBINE BULBOSA, *Haw.* N.O. Liliaceæ. "Native Onion."

This plant is recorded as poisonous to stock in Queensland and South Australia. Two years ago it was sent to me from near



Penrith, in this colony, with the report that it had poisoned cows in a paddock in which there was but little grass owing to the dry weather, and I was informed that horses either would not touch it or that it appeared to have no effect on them. I am aware that this is contrary to Queensland experience.

NICOTIANA SUAVEOLENS, *Lehm.* N.O. Solanaceæ. "Native Tobacco."

So many contradictory statements have been made in regard to the poisonous nature to stock, or the reverse, of this plant, that specific evidence is now necessary to settle the point once for all. In the *Journal Bureau Agric. S.A.*, Aug., 1890, it is stated that the plant has killed a number of cattle and pigs at Mannum, Terowie, and other parts of South Australia. The percentage of nicotine in the plant at various stages has never been ascertained, so far as I am aware; meantime we are ignorant as to the extent of its poisonous nature.

CASSIA SP. N.O. Leguminosæ.

I have received some leaves (too fragmentary for determination), of a *Cassia* from the Wilcannia district, with the report that they cause purging in cattle and horses after eating only a small quantity. The leaves of various species of this genus form, as is well known, the sennas of commerce; it would be interesting to chemically examine any of our purgative native sennas.

ESSENTIAL OILS.

EUCALYPTUS CNEORIFOLIA, *DC.* N.O. Myrtaceæ.

This is another Eucalypt which has been made to yield its oil for commercial purposes during the past twelve months. Messrs. W. Cumming & Co., of Adelaide, have established works at Kangaroo Island, South Australia, and have produced an article of high quality. It is different to any other Eucalyptus oil I have examined in that it has a secondary odour reminding one of dill or caraways.

SANTALUM CYGNORUM, *Miq.* (Syn. *Fusanus spicatus*, R.Br.).
Sandalwood oil from Western Australia.

It does not appear to be easy to obtain full particulars of the commerce in sandalwood and its products, which form no insignificant item in the trade of the western colony. My interest in the matter has been re-awakened by observing in the Sydney newspapers of September last a telegram from Perth, W.A., to the effect that "The newly-established Distillery Company, a short distance from Albany, shipped the first instalment of 20 cases of sandalwood oil to England." The resinous-smelling West Australian sandalwood (pronounced by Schimmel & Co. to be quite unsuitable to European requirements) goes to Singapore and China, to be burned as incense in Buddhist temples, and, doubtless, Malays and Chinese have exploited Western Australian sandalwood for centuries. Western Australia exported in 1889 to Singapore and China 4470 tons, of the value of £33,525.

As to the oil, I have received no reply from the Distillery Company in respect to it, nor have I observed any account of its reception in the London and Continental markets.*

SUBSTANCE REPUTED MEDICINAL.

VERBENA OFFICINALIS, *Linn.* N.O. Verbenaceæ.

I have received this plant from the north-west of this colony with an intimation that it is employed by the blacks in venereal complaints.

TIMBERS.

I give brief notes on the following timbers, which have not, so far as I am aware, been previously described.

* Since the above was written I have obtained, by the roundabout way of London and Leipzig (*Chemist and Druggist*, and Schimmel and Co.), a few particulars concerning this oil. Its specific gravity is variously stated at .953 and .962; its odour as "much more fragrant than the Madras kind" and "sharp." Its colour is pale straw.

ACACIA PENNINERVIS, *Sieb.* "Mountain Hickory."

Although this tree is so abundant in the south, its timber does not appear to have come into general use, but an expert in the Bombala district considers it excellent, being very durable and very tough, on which account he prefers it to anything else for axe and tool-handles. It is said that the timber can almost be bent double upon itself. Trees obtained from high stony ridges are usually sound. The timber is flesh-coloured, has a pretty figure, and very little sap-wood. It is not easy to dress.

ACACIA TETRAGONOPHYLLA, *F.v.M.* A "Dead finish."

Timber very hard, heavy, tough, and close-grained. Its prevailing colour is reddish-brown, and it has pinkish stripes. It is well adapted for small turnery and cabinet work, but it is hard to work. When fresh it smells like violets. An interior species.

ACKAMA MUELLERI, *Benth.* (Syn. *Weinmannia paniculosa*, *F.v.M.*).
N.O. Saxifrageæ. A "Corkwood."

A timber likely to prove of value. It is hardly to be distinguished from that of *Eucryphia Moorei*. When fresh it is drab with a purplish cast, close in the grain, tough, and dresses with facility. In the uplands in the county of Gloucester and further north it is plentiful, and in places it is not unfrequently found three feet in diameter.

CALLICOMA SERRATIFOLIA, *Andr.* N.O. Saxifrageæ. Sometimes called "Coachwood" in the Braidwood district.

It is close in the grain, and works remarkably well to a nice smooth surface. It has no figure to speak of, and is of a pinkish colour. It is used sometimes for wheelwrights' work, but is never of sufficient diameter for large work. The young saplings used to be split and used for basket-making.

HAKEA SALIGNA, *R.Br.* N.O. Proteaceæ. "Foley Wood."

The tree and its wood go under this name over a considerable area in the extreme south-east of the colony. It is a flesh-coloured,

little-figured, free-working timber, and though apt to rend in drying, repays attention to seasoning. A Mr. Foley, who, up to the time of his death a few years ago, was a road-maintenance man in the Bombala district, used to make pick, hammer, and axe-handles of this wood, which acquired considerable local reputation and were readily purchased. This is the origin of the local name, and it is an interesting example of the way plant names have been often given in this country.

LOMATIA FRASERI, *R.Br.* N.O. Proteaceæ. "Lancewood."

Used for similar purposes to the preceding,—a timber which it much resembles. It is close in texture, has a pretty oak grain, and is of a very pale pink colour. It is difficult to plane.

POMADERRIS CINEREA, *Benth.* N.O. Rhamnaceæ.

Tough, close in the grain, dresses up fairly well, but is inclined to warp and split. It is moderately heavy, and the heartwood has a pleasing brown colour. It is hardly known, and appears to be never used. It is probably useful for tool-handles. Southern districts.

MISCELLANEOUS.

Mr. C. Hedley informs me that the natives of Northern Queensland, when hotly pursued, have often escaped from their enemies in the following manner. They break off the leaf-stalk of a water-lily, disappear in the waters of a lagoon or river, and breathe by means of this porous leaf-stalk, which extends from their mouths to the surface of the water. They have been known thus to remain concealed in water for half an hour. During President Carnot's tour in Corsica in 1889, it was related in the newspapers that a Frenchman had escaped from brigands by means of a similar expedient; he used a hollow reed, and made the statement that he had been under the surface of a certain lake four hours.